

C L A I M S

1. Use of a Fischer-Tropsch derived gas oil in a diesel fuel composition, for the purpose of reducing subsequent combustion related deposits in a diesel engine into which the fuel composition is introduced and/or of removing previously incurred combustion related deposits from the engine.  
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2. Use according to claim 1, wherein the amount of the Fischer-Tropsch derived gas oil used in the fuel composition is 10% w/w or greater.
- 10 3. Use according to claim 1 or claim 2, wherein the fuel composition includes a detergent.
4. A method of operating a diesel engine, and/or a vehicle which is driven by a diesel engine, which method involves introducing into a combustion chamber of the engine a diesel fuel composition incorporating a Fischer-Tropsch derived gas oil, and optionally also a detergent, for the purpose of reducing subsequent combustion related deposits in the engine and/or removing previously incurred combustion related deposits in the engine.  
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- 20 5. Use of a Fischer-Tropsch derived gas oil, and/or of a fuel composition containing a Fischer-Tropsch derived gas oil, to remove combustion related deposits from a diesel engine.
6. Use according to claim 5, wherein the Fischer-Tropsch derived gas oil and/or the fuel composition is used together with a detergent.  
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7. A method for assessing the performance of a candidate diesel fuel composition, comprising the steps of:

- 1) measuring the level of combustion related deposits in a diesel engine running on a standard diesel fuel composition, which standard fuel composition contains no, or less than 1% w/w of, Fischer-Tropsch derived gas oils;
- 2) subjecting the engine to a first test cycle running on the standard fuel composition;
- 3) measuring the level of combustion related deposits in the engine after the first test cycle;
- 4) calculating the increase in deposits during the first test cycle;
- 5) subjecting the engine to a second test cycle running on the candidate diesel fuel composition;
- 6) measuring the level of combustion related deposits in the engine after the second test cycle;
- 7) calculating the increase in deposits (if any) during the second test cycle; and
- 8) if applicable, calculating the extent of removal of deposits during the second test cycle.

8. A diesel fuel composition which, when used as the candidate fuel composition in a method according to claim 7, leads to removal of at least 5% of the combustion related deposits accumulated in the engine prior to step 5 of the test, when the duration of the second test cycle is the same as or less than that of the first test cycle.

9. A diesel fuel composition which includes a major proportion of a fuel or fuel blend for an internal combustion engine of the compression ignition type, wherein

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the fuel or fuel blend comprises at least 30% w/w of a  
Fischer-Tropsch derived gas oil.

10. A diesel fuel composition according to claim 9,  
additionally comprising a detergent.